



New Century Composite Squadron

NCR-KS-123

1 NEW CENTURY PKWY ROOM 128
NEW CENTURY AIR CENTER, KS 66031



HAPPY BIRTHDAY CIVIL AIR PATROL!

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MESSAGE FROM COLONEL REGENA AYE, WING COMMANDER

Merry Christmas and Happy New Year New Century Composite Squadron!

The squadron has achieved many accolades since its formation in 1990 embracing the three missions of the Civil Air Patrol. Each of CAP's chartered missions are definitely challenging and rewarding as we perform each one. We are required to provide an organization to encourage and aid American citizens in their efforts, services, and resources in developing aviation and in maintaining air supremacy.



In the next decade, the world will see new advances in aerospace firsts, new aerospace history will be written, and America prepares to return to the Moon with a goal to land on Mars. Many nations are involved in the development, production, and putting to use new military fighter technology and aviation manufacturers will be improving on advanced navigation technologies and ground piloted flights for civilian and military operations.

The aviation and aerospace achievements CAP has witnessed or been directly involved with since December 1, 1947, is part of the Aerospace Education we study. What has been achieved today could not have been possible without the dedication of pioneers we read about in **Aerospace: The Journey of Flight**. Pilots and astronauts could not be achieving the history they are creating today and tomorrow, if it weren't for the sacrifices and forward thinking of our pioneers.

I challenge each member of the squadron to embrace the teachings of the book, *Aerospace: The Journey of Flight* by studying it and taking the Charles E. "Chuck" Yeager Award test even if you are a Lt Col who has never taken the test to the newest senior member, participating in the Aerospace Education Excellence (AEX) program, and when called to assist in CAP's **Above and Beyond** program promoting aerospace education to our communities.

Your squadron's Aerospace Education Officers have a great program for 2010 to prepare you for the Yeager Award test, participating in the AEX program, and working to reestablish external programs. Be sure to actively participate and support your Aerospace Education team.

Merry Christmas, and have a rewarding 2010 Civil Air Patrol New Year!

CHRISTMAS MESSAGE FROM LT COL DOMINICK ITALIANO, SQUADRON COMMANDER

2010 is fast approaching and the new year will bring new Aerospace Education opportunities. The Squadron will be participating in the Aerospace Excellence Award program for both the senior members and cadets. The program will enable everybody to participate in hands-on activities.

Our other goals include increasing the number of Aerospace Education Members from the local schools and conduct Fly-a-Teacher flights.

Aerospace Education is everybody's goal in 2010 with more senior members earning the Charles E. "Chuck" Yeager Award.

I wish you a happy holiday season, and look forward to a successful 2010 for all.

Merry Christmas and Happy New Year!

AEROSPACE HISTORY: CONTROLLED POWERED FLIGHT

The 1903 Wright Flyer made four flights at Kitty Hawk, North Carolina, on December 17, 1903, the best covering 852 feet in 59 seconds. It was the first heavier-than-air, powered aircraft to make a sustained, controlled flight with a pilot aboard.

The Wrights used their proven canard biplane configuration which was rooted in their initial 1899 kite design. Key to the Flyer's success was its three-axis control system, which featured wing-warping for lateral balance, a moveable rudder, and an elevator for pitch control.

From 1900 until their first powered flights in late 1903, they conducted extensive glider tests that also developed their skills as pilots.



The brothers' fundamental breakthrough was their invention of three-axis control, which enabled the pilot to steer the aircraft effectively and to maintain its equilibrium. This method became standard and remains standard on fixed-wing aircraft of all kinds.

From the beginning of their aeronautical work, the Wright brothers focused on unlocking the secrets of control to conquer "the flying problem," rather than developing more powerful engines as some other experimenters did. Their careful wind tunnel tests produced better aeronautical data enabling them to design and build wings and propellers more effective than any before.

CAP's Recognition of the Wright Brothers



The Civil Air Patrol recognizes the Wright Brothers in the cadets Leadership Phase for advancement by learning how to become effective leaders in small teams. Cadets continue to investigate fundamentals of aerospace through self-study and/or group-study. Cadets select an essay & speech assignment from one of the following:

- America's aerospace power in commerce, science or national security.
- Learning from leadership mistakes.
- Differences in leadership and followership.
- A cadet presents to their squadron developing public speaking skills and confidence in speaking to an audience. ❖

REMEMBERING OUR HERITAGE

Civil Air Patrol was created on December 1, 1941 by Administrative Order 9, issued by Fiorello H. LaGuardia in his capacity as Director of the Office of Civilian Defense with Major General John F. Curry as the first National Commander. During World War II, CAP was seen as a way to use America's civilian aviation resources to aid the war effort instead of grounding them. The organization assumed many missions including anti-submarine patrol and warfare, border patrols, and courier services. CAP pilots sighted 173 enemy U-boats and sank two.

After the end of World War II, CAP became the civilian auxiliary of the United States Air Force, and its incorporating charter declared that it would never again be involved in direct combat activities, but would be of a benevolent nature. CAP changed command several times, to Continental Air Command in 1959, Headquarters Command, USAF in 1968, and Education Command, Air University in 1976. Since its incorporation charter, CAP has maintained its relationship with the USAF, and has continued its three congressionally-mandated missions: Emergency Services, Aerospace Education, and Cadet Programs.

The Aerospace Education Program provides aviation related education and educational activities for members, including formal, graded courses about all aspects of aviation including flight physics, dynamics, history, and application. Courses covering the space program, and new technologies and advances in aviation and space exploration, are also available. There are several programs for CAP pilots to improve their flying skills and earn Federal Aviation Administration ratings.

The Cadet Program has a mandatory aerospace education program; in order to progress, a cadet must take a number of courses and tests relating to aviation. Cadets also have educational opportunities through museum tours, National Cadet Special Activities, military and civilian orientation rides, and guest speakers.

Senior members may study aerospace through the Senior Member Professional Development Program. CAP encourages its senior members to learn about aviation and its history, although this is not mandatory. Those who complete the Aerospace Education Program for Senior Members may earn the Charles E. "Chuck" Yeager Aerospace Education Award.

Through outreach programs, including the External Aerospace Education program, CAP helps schoolteachers integrate aviation and aerospace into the classroom by providing seminars, course materials and through sponsorship of the

National Congress on Aviation and Space Education. Members also provide their communities with resources for better management of airports and other aviation-related facilities, and promote the benefits of such facilities. We also work with other groups, such as the Boy Scouts of America, the Girl Scouts of the USA and 4-H to fulfill the education goal set down in the organizations congressional charter - to "encourage and foster civil aviation in local communities."

Civil Air Patrol's first cadet program was started during World War II as a way to provide training for future pilots. Since then, the program has flourished, combining Aerospace Education with Leadership and Career training.

As a Cadet progresses through the cadet program, they earn various achievements by successfully passing both Leadership and Aerospace Education tests. Test questions are derived from reading materials supplied to cadets, but the program is also designed to allow cadets to fill ever increasing leadership roles that are pertinent to their Leadership Studies questions.

Civil Air Patrol also has several cadet squadrons located in middle schools. CAP's School Enrichment Program (formerly known as Middle School Initiative) is a ready-to-use program for teachers and other mentors conduct leadership training through Aerospace Education classes. Students are introduced to the principles of flight, model rocketry, and also leadership. CAP's SEP program is similar to a Junior ROTC program. CAP has 47 units located in Middle School classrooms throughout the country. ❖

AEROSPACE EDUCATION EXCELLENCE (AEX) PROGRAM FOR SENIORS

By Capt Vicki Davis

On November 17, 2009, Capt. Davis presented the second lesson in the Aerospace Education Excellence (AEX) program for senior members. The AEX program features national standards-based aerospace lessons and hands-on activities. The requirements are simple: complete six aerospace activities and one two-hour or longer field experience (space day, trip to the airport or museum, etc.) to earn a beautiful wooden instructor plaque plus participant certificates. The activities are designed to fit into any curriculum. Schools' state-approved curriculum may replace or supplement the AEX activities created for this program. At any time during the next year it is expected that many of our senior members will also earn the Yeager Award.

At the November meeting the first aerospace activity involved the building of a tissue hot air balloon. The senior members glued tissue paper together to make 6 different colored sheets. From preformed patterns they cut out the gores for the balloon. Using glue sticks and following specific instructions, they constructed a balloon, similar in shape to a real hot air balloon. The top was secured together with string and the bottom was left open and a wire ring was attached to make a rigid opening for the hot air.



Maj Worthington (Left), and new member 1st Lt Jack McKain, make adjustments to their balloon.



On December 1, 2009, the attending cadet core joined the senior members at the Olathe National Guard Armory at 1900 for the senior meeting. The aerospace education portion of the meeting consisted of two parts. A guest speaker, Mr. Scott Davis, a hot air balloon pilot, presented an interesting and informative PowerPoint on the history of hot air ballooning, take-off and landing procedures, and current FAA aeronaut licensing requirements. After the presentation all present adjourned to the armory parking lot and by the light of a full moon, launched the model tissue paper hot air balloons that had been previously constructed. The tissue balloons attained heights of between 25 and

40 feet and flew up to 100 yards before being retrieved by the cadets. Many of the cadets launched the balloons and enjoyed the aerospace presentation and activities. ❖

AEROSPACE EDUCATION PROGRAM SENIOR MEMBER (AEPSM)

Capt Vicki Davis is the Squadron's newest Charles E. "Chuck" Yeager Award recipient. She successfully completed the examination on 26 November 2009.

AEROSPACE EDUCATION ACTIVITIES

NASA Invites Young People to Take Virtual Space Station Spacewalks – A new video game based on actual work astronauts performed during the course of several NASA missions is available online. To take a virtual spacewalk in the Station Spacewalk game, visit: http://www.nasa.gov/multimedia/3d_resources/station_spacewalk_game.html

NASA Invites You to Send Your Name to Mars – Submit your name to be included on a microchip that will be sent to Mars as part of NASA's Mars Science Laboratory mission, scheduled to launch in 2011. The "Send Your Name to Mars" Web page enables anyone to take part in the mission by sending his or her name to the Red Planet. To submit names, visit: <http://marsprogram.jpl.nasa.gov/msl/participate/sendyourname/>

Lockheed Martin, the Space Foundation and SpaceClass announced the launch of a strategic online education collaboration called *Orion's Path*. *Orion's Path* is an interactive lesson on SpaceClass -- the only web-based education program using videos and virtual science labs to engage students in research being conducted for space exploration. Lesson contents meet National Learning Standards for middle school grades and use of the site is free to teachers. To sign up, go to: <http://www.lockheedmartin.com/products/Orion/OrionsPath.html>

CAP TEACHER FLIGHTS

Wings are making plans for teacher flights in 2010 and are involving teachers in the complete experience by implementing teacher workshops prior to the flights. Invite new AEMs (Aerospace Education Members) in your wing to receive an orientation flight and get their students excited about aerospace. Or, invite teachers in your community to become AEMs and fly. Remember to keep the Wing Commander and your wing POC (usually the Director of Aerospace Education) informed and supportive of your efforts. Please contact Judy Stone at jstone@caphnq.gov with your plans (number of teachers flying, date, and estimated cost). To find out more, go to the Fly-a-Teacher section at www.capmembers.com/ae.

DRUG DEMAND REDUCTION PROGRAM AND THE HOLIDAY SEASON

By 2nd Lt Scott Williams

'Tis the season. The holiday season is upon us and many of you will find yourself attending holiday parties, football get-to-gathers, and New Year's Eve celebrations. Some of you may feel stress due to the holiday season, end of the year deadlines, or spending a lot on those special gifts for family and loved ones. At these times, many will consume alcohol to "unwind" or relax.

If you choose to consume the festive holiday spirits, please keep in mind that the **ounces add up**. What does one 4 ounce glass of wine or Champagne, one ounce of whiskey or one 12 ounce can of beer have in common? They all contain the same amount of alcohol. The average, healthy person breaks down and eliminates approximately 1/3 to 1/2 ounces of alcohol per hour. The more that's consumed, the longer it takes for the body to eliminate the alcohol.

A common question I get is, 'How much alcohol can I consume and be legal to drive.' My answer is, "It depends." It depends on gender, body weight, rate of consumption, and total amount consumed. The average 25-year old male can consume 3 ounces and be just under the legal limit of .08. You can do the math or carry a Preliminary Breath Tester

with you.

The important thing to remember is – the very first drink has an effect on the body. It effects the brain (impaired reaction time, reasoning, judgment, and memory), eyes (double and blurred vision), and the inner ear (dizziness, decreased hearing perception). Senses that are needed while driving or flying.

Drink responsibly and have a safe Holiday Season. ❖

AIR FORCE ACADEMY CANDIDATE APPLICATION PREPARATIONS

By Capt Michael Maynard

During U.S. Air Force Major Ryan Aerni's visit in November, several cadets expressed goals to attend the U.S. Air Force Academy in Colorado Springs, Colorado. Major Aerni impressed on the cadets the Academy has a challenging and rewarding curriculum for anybody who attends. Obtaining an appointment to any service academy can be a challenge if the Precandidate doesn't prepare academically, physically, emotionally, and having a well prepared Precandidate package.

Ten percent of the Air Force Academy's students are former and current Civil Air Patrol members. Participating in CAP and achieving the Billy Mitchell Award and higher provides greater strength in your Precandidate resume

Preparing for the Academy is not an overnight event. Cadets can start preparing as early as the eighth grade, and not just in academics. Being in CAP is an important extra curricular activity strengthening your academic performance, providing a positive civic image, and instilling moral leadership traits sought by the Academy.

Here is a list of the requirements for submitting a Precandidate kit for a nomination:

- Ensure you meet the basic eligibility requirements. **You must be a U.S. citizen, be of good moral character and be at least 17 but not yet 23 on July 1 of the year you enter the Air Force Academy.** Applicants who are married, pregnant or have dependents will not be accepted.
- **Take the SAT or ACT college-entrance exams. Applicant's prior academic record consisting of GPA and SAT/ACT test scores make up the biggest piece of the selection process.**
- **Start the application process in the spring of your junior year of high school.** Fill out the Precandidate Questionnaire on the Air Force Academy's Web site. An initial screening is done based on the Precandidate Questionnaire. Applicants passing this screening will receive a Candidate Kit beginning in August.
- **Apply for a nomination from all available sources, including your local Congressperson and U.S. Senators from your state. Check your representatives' Web sites for the application process and requirements, as they differ. Nominations are based on merit, not political connections.**
- **Get in shape physically. Prepare for the fitness test through conditioning exercises and running.** Continue to exercise throughout the application process in order to be ready for the requirements of the Air Force Academy.
- **Finish the application process as soon as possible upon receiving the candidate kit.** The kit will explain how to set up the fitness test and the medical exam. The kit will also ask for other paperwork, such as a writing sample.
- **Interview with the Air Force Academy Liaison Officer. Discuss your goals, qualifications and reasons for wishing to attend the Air Force Academy. This is a formal meeting and appropriate professional dress is expected.**

Candidates who do not receive a regular appointment from the Academy may be offered the opportunity to attend **The United States Air Force Academy Preparatory School**, better known as the "Prep School," which is designed to academically, physically and militarily prepare qualified young men and women to enter the Academy. **Successful completion of the Prep School improves chances for appointment as a cadet, but does not guarantee one.**

DEMOGRAPHIC PROFILE OF THE CLASS OF 2013

The United States Air Force Academy's Class of 2013 entered and took the Oath of Office on 26 Jun 2009.

Applicant and Nominees

Applicants	9897
Candidate Pool	6940
Qualified Candidates	2253
Offers of Admission	1667
Admitted	
New U.S. Cadets	1351
New International Cadets	11
<u>Turnbacks Returning</u>	<u>6</u>
Total	1368

Women

Two hundred and seventy seven (277) women (20.3% of the class) were admitted with the Class of 2013.

Minorities

The Class of 2013 includes a total of 312 (excluding Internationals) minority cadets (23.0% of the class).

Non-Minority	1045	-77.0%
Hispanic	129	-9.5%
Asian/Pacific Islander	90	-6.6%
African American	81	-6.0%
Native American	12	-0.9%

College Board Scores (SAT)

Excludes USAFA Prep graduates and International cadets.

	<u>Mid 50% Range</u>	<u>Mean</u>
Verbal	600-680	639
Math	630-700	664

American College Testing Program Scores (ACT)

Excludes USAFA Prep graduates and International cadets.

	<u>Mid 50% Range</u>	<u>Mean</u>
English	27 – 32	29.6
Math	28 – 33	30.3
Reading	28 – 33	30.1
Science Reasoning	27 – 32	29.4

Rank in High School Class

Excludes those reporting class size <5

Top Tenth	53%
Top Fifth	76%
Top Quarter	82%

<u>High School GPA</u>	3.86
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High School Honors and Activities (excludes turnbacks)

Class President	10%
Class Vice-President	5%
Valedictorian	7%
Salutatorian	2%
National Honor Society	65%
Boy's/Girls State or Nation Representative	12%
Yearbook/Newspaper (Editor or Business Manager)	3%
Yearbook/Newspaper (Other Staff Member)	11%
Debate Team	9%
Dramatic Production	14%
Band or Orchestra	25%
Chorus/Glee Club	11%
Boy/Girl Scouts	28%
Eagle Scout/Gold Award	13%
JROTC Cadet	11%
Civil Air Patrol	10%
Academic Bowl Team	11%
Athletic Letter Awards (1 or More/Any Sport)	83%
Football	25%
Basketball	11%
Baseball	9%
Track	29%
Swimming	12%
Soccer	12%

Geographical Distribution

Cadets were admitted from every state in the nation and from the Territory of Guam. The Class of 2003 also admitted 11 International Students from Colombia, Croatia, Ghana, Peru, Philippines, Poland, Lithuania, Serbia, Taiwan, Thailand, Trinidad, and Tobago.

Sons and Daughters of Alumni

The Class of 2013 includes 73 sons and 24 daughters of Service Academy Graduates (7.1% of the class):

<u>Academy Alumni</u>	<u>Sons</u>	<u>Daughters</u>
US Air Force Academy	57	20
US Military Academy	9	2
US Naval Academy	4	2
US Coast Guard Academy	3	1
US Merchant Marine Academy	1	0

Note: One male and one female cadet had parents attending two different academies. Both academies are counted in the Academy Alumni section.

Source: HQ USAFA/XPN, 9 Jul 09

CAP LETTER OF REFERENCE FOR THE AIR FORCE ACADEMY PREP SCHOOL

Each year HQ CAP submits recommendations to the U.S. Air Force Academy for one cadet to attend the Academy's Preparatory School. The Prep School's one-year program (valued at over \$32,500) greatly increases a student's potential for admission to the Academy. It is a fantastic opportunity for cadets who might not otherwise qualify for appointment to the Academy.

In recent years, USAFA officials have exceeded their annual commitment of admitting one CAP cadet to the Prep School. For each of the past few years, USAFA has selected from among the HQ CAP recommendations a couple cadets to attend the Academy; a couple cadets to attend the Prep School; and awarded a couple cadets Falcon Foundation Scholarships, which have helped them eventually earn appointments to the Academy.

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Read the "[Common Myths About the Academy](#)" by Capt James Naugle.

Application Procedures

Step 1: USAFA Application

Applicants must first apply directly to the USAFA using the USAFA Application for Admission, available at www.academyadmissions.com.

Please see the "[USAF Academy Applications Instructions](#)" flyer for further details about the application process.

Cadets must request the application by 31 December of their senior year. The USAFA must receive the completed application by 31 January of the year you apply to attend.

All cadets aspiring to attend the Academy are strongly urged to apply for CAP's USAFA Prep School recommendation.

Applications receiving CAP recommendations will be forwarded to USAFA. Academy officials make the final selection(s) and announce them in the Spring, usually in April.

APPLICATION PROCEDURES FOR ALL CAP SCHOLARSHIPS

Step 2: CAP Procedures for USAFA Application

The following applies to all scholarships. Additional criteria will be noted within the specifics of an individual scholarship description:

1. Be a current CAP member;
2. Have earned the Billy Mitchell Award (cadets only);
3. Have earned a Senior Rating in any Specialty Track (seniors only);
4. Possess and maintain an academic and discipline standard acceptable to the school;
5. Be enrolled in a full-time course of study during the academic year for which the scholarship is awarded;
6. Have not received the scholarship in the past that you are applying for.

Members that have been selected for scholarships will need to provide official school transcripts and other supporting

documents to validate the information that is provided in the application.

HOW TO APPLY

1. Log on to [eServices](#).
2. Select the Scholarships application from the CAP Utilities on the left side.
3. Fill out each of the first three sections.
4. Upload your Resume, Letter of Recommendation (LOR) and Flight plan (if needed). Each document must in PDF format.
5. Go to the fifth section and submit the application.

If the individual you ask to write your LOR is uncomfortable with handing the letter to you to upload, they can send in their LOR via email to strupp@capnhq.gov or mail it to

CAP National Headquarters/CP
Attn: Scholarships
105 S Hansell ST
Maxwell AFB, 36112

*** NOTE, you can only submit your application once. Please have all of the documents ready, in PDF format, before submitting.*** ❖

CALENDAR OF EVENTS

SQUADRON AEROSPACE EDUCATION FOR SENIORS (EVERY THIRD TUESDAY OF THE MONTH)

PLACE: NEW CENTURY

TIME: 8 PM TO 9 PM

AEROSPACE: *THE JOURNEY OF FLIGHT*

SQUADRON AEROSPACE EDUCATION FOR CADETS (EVERY FIRST TUESDAY OF THE MONTH)

PLACE: NATIONAL GUARD ARMORY - OLATHE

TIME: 7 PM TO 9 PM

NATIONAL EVENTS

CIVIL AIR PATROL ANNIVERSARY

YOUR AEROSPACE EDUCATION TEAM & CONTACTS



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